Antibiotics for the prevention and treatment of early-onset neonatal infection

Summary of key points raised at stakeholder scoping workshop on 18 May 2010

Key clinical issues that will be covered

Various clinical issues were widely discussed as being of potential importance.

- Each of the discussion groups considered inclusion of intrapartum antibiotic prophylaxis (IAP) as a potentially important area and that the scope should be explicit as to whether or not this aspect of prevention was to be included. Some expressed a strong view that if the remit included prevention then IAP should certainly be included.
- The implications of IAP should be considered. These could be positive or negative. Would IAP obviate the need for neonatal treatment and hence shorten hospital stay?
- There was discussion about the possibility that infants could be placed in risk categories and treated accordingly. This was a potentially important clinical question.
- There was agreement that practically the scope should use “72 hours” for definition of early-onset neonatal infection.
- The importance of identifying “risk factors” was discussed and accepted as important. It might be possible to categorise levels of risks, and determine antibiotic policy on that basis.
- There was general agreement on the importance of looking at the accuracy of diagnostic testing. In particular there was discussion regarding the accuracy of blood culture and urine culture. However, these were currently ‘gold standard’ tests.
- One group discussed the possible inclusion of antibiotic treatment for ureaplasma species to prevent chronic lung disease, but it was agreed that while there was research underway on this matter it was not currently clinical practice in the UK and it should not be included.
- A key priority for the guideline should be the avoidance of unnecessary or inappropriate antibiotic treatment. This could be guidance leading to complete avoidance in some cases, or guidance regarding the appropriate duration or choice of antibiotics. This could have important clinical and cost effectiveness implications. It was suggested that guidance on the decision between narrow-spectrum antibiotics (benzylpenicillin and gentamicin) and broad-spectrum antibiotics was both important and controversial (much variation in departmental practice) and was an important priority.
Outcomes
A number of additional “outcomes” were identified as being of potential importance.

- Proven sepsis
- Duration of hospital stay
- Need to admit to neonatal unit
- Measures of impact on family
- Long-term consequences – e.g. cerebral palsy

Membership of guideline development group
In addition to the proposed guideline development group (GDG) membership, or as alternatives, the following suggestions were made.

- Tertiary neonatologist
- District general hospital general paediatrician with interest in neonatology
- Pharmacist (external advisor or full member of GDG)
- Midwife with both tertiary unit and community experience
- Paediatric infectious disease specialist
- Paediatric intensivist
- Commissioning expert

Equalities issues
One group suggested that the risk of group B streptococcus infection is higher in people of African Caribbean origin. This group also suggested that the risk of preterm birth (which is associated with an increased risk of early-onset neonatal infection) is influenced by socioeconomic status, and requested that the guideline cross-referred to the forthcoming NICE clinical guideline on social complications in pregnancy and relevant NICE public health guidance.